1116-VF-1046   **Sarah E. Vigliotta*** (`svigliotta@wesleyan.edu`). *An algorithm for the independence number of incidence graphs.*

In 1993, Brualdi and Massey defined the incidence graph of G, $Inc(G)$, to be the graph whose vertices are the set of incidences - pairs of the form (u, e) where u is a vertex of G and e is an edge of G containing u as an endpoint - and where two incidences (u, e) and (v, f) are adjacent if (i) $u = v$, (ii) $e = f$ or (iii) $uv = e$ or $uv = f$. We will describe an algorithm to find a maximum independent set of $Inc(T)$, where T is a rooted tree. Finally, we give some generalizations of this algorithm to find the independence number of incidence graphs of graphs other than trees. (Received September 16, 2015)